

Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

ENVIRONMENTAL ASSESSMENT
For Routine Actions with Limited Environmental Impact

Part I. Proposed Action Description

1. Applicant/Contact name and address: Arbuckle Ranch, Inc.
1745 Golden Blvd
Billings, MT 59102
2. Type of action: Application to Change a Water Right
39F-30051191
3. Water source name: Unnamed Tributary of the Little Missouri River
4. Location affected by project: Sections 20, 28, and 29, T7S, R61E, Carter County
5. Narrative summary of the proposed project, purpose, action to be taken, and benefits:

The Applicant proposes to add a purpose of fishery to Water Right Claim No. 39F 175521-00. The Applicant has modified the diversion by lowering the historic dam height by 3 feet, digging a pit (200 feet by 200 feet by 22 feet deep) immediately behind the dam, and sealing a gravel seam with bentonite. These modifications were done in an effort to increase the efficiency of the diversion and maintain water in the reservoir year-round. The combination of digging the pit and lowering the height of the dam decreases the surface area and impounding capacity of the reservoir. The decrease in surface area results in less evaporation; a portion of the volume saved in evaporative losses is proposed to be changed to the purpose of a fishery. The increased depth of the reservoir allows for water to be stored for year-round use and creates suitable fish habitat.

The DNRC shall issue a water use permit if an applicant proves the criteria in 85-2-311 MCA are met.

6. Agencies consulted during preparation of the Environmental Assessment:
(include agencies with overlapping jurisdiction)

Montana Department of Environmental Quality Website – TMDL 303d Listing
Montana National Heritage Program Website – Species of Concern
United States Fish and Wildlife Website – National Wetland Inventory
Montana Department of Fish Wildlife and Parks – Dewatering Concern Areas
Montana Bureau of Mines and Geology – Geologic Map, Alzada 30’x60’ Quadrangle

Part II. Environmental Review

1. Environmental Impact Checklist:

PHYSICAL ENVIRONMENT

WATER QUANTITY, QUALITY AND DISTRIBUTION

Water quantity - Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.

Determination: No impact

No information is available on the Unnamed Tributary; however, the Little Missouri River is not identified as chronically or periodically dewatered stream by DFWP.

Water quality - Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.

Determination: No impact

The Unnamed Tributary of the Little Missouri River is not identified as being impaired or threatened; however, the Little Missouri River (Highway 323 Bridge to South Dakota border) is listed on the Montana DEQ website, Clean Water Act Information Center. This source is listed to fully support contact recreation, and partially support aquatic life and warm water fishery. Impairments include increased metals in the source from natural causes. No changes to water quality or chemistry are anticipated due to the nature of the proposed change.

Groundwater - Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.

Determination: No impact

The application includes only surface water from an Unnamed Tributary to the Little Missouri River.

DIVERSION WORKS - Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.

Determination: Minor impact

The original dam, built in 1909, created a large on-stream impoundment on an Unnamed Tributary of the Little Missouri River. Since then the dam has impounded water every season. In 2000, the reservoir was dug deeper and dam lowered by 3 feet making the diversion smaller and more efficient. Historically the reservoir typically dried up seasonally and no carry-over storage was available from year to year. Since the reservoir was deepened in 2000, water has remained in the reservoir year-round, even during drought years of 2002 to 2005. The smaller

reservoir requires less water to fill and therefore more water is allowed to flow downstream seasonally.

UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES

Endangered and threatened species - *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any “species of special concern,” or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or “species of special concern.”*

Determination: No impact

The Montana Natural Heritage Program website did not show any threatened or endangered fish, wildlife, plant, or aquatic species or any “species of special concern” that could be impacted by the proposed project.

Wetlands - *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

Determination: Minor impact

The National Wetlands Inventory (NWI) map is available in the vicinity of this proposed project. Areas near the project location have been mapped as Palustrine emergent, these wetlands are either temporarily or seasonally flooded. The reservoir is identified as a Palustrine emergent wetland that is seasonally flooded and created from a manmade impoundment. The wetland area boundaries associated with this pond and may decrease.

Ponds - *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

Determination: Minor impact

The applicant has modified an existing shallow stock watering pond in order to make it viable for year-round fishery purposes. The applicant lowered the height of the dam by 3 feet and dug a 200 foot by 200 foot trench immediately behind the dam to a depth of 22 feet. This impoundment will allow for year-round survival of stocked Rainbow Trout. The reservoir has been fenced off to keep the livestock from drinking directly from the reservoir. Instead, water is pumped from the reservoir to a stock tank using a solar pump with a level shut-off sensor.

GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

Determination: No impact

No change in soil quality, alteration of stability, or moisture content is anticipated with modifications to the existing dam. Vegetation cover has already been established around the edges of the reservoir.

VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

Determination: No impact

Typical short term construction activities associated with the construction of dams and ponds may cause temporary disturbances to vegetation cover. The dam is already in place and the spillway has been planted with grass. It is the responsibility of the property owner to control noxious weeds on their property.

AIR QUALITY - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

Determination: No impact

HISTORICAL AND ARCHEOLOGICAL SITES - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

Determination: NA-project not located on State or Federal Lands.

DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

Determination: No impacts not already assessed.

HUMAN ENVIRONMENT

LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

Determination: No impact

ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

Determination: Improved

HUMAN HEALTH - *Assess whether the proposed project impacts on human health.*

Determination: No impact

PRIVATE PROPERTY - Assess whether there are any government regulatory impacts on private property rights.

Yes ___ No X If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.

Determination:

OTHER HUMAN ENVIRONMENTAL ISSUES - For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.

Impacts on:

- | | |
|---|------|
| (a) <u>Cultural uniqueness and diversity?</u> | None |
| (b) <u>Local and state tax base and tax revenues?</u> | None |
| (c) <u>Existing land uses?</u> | None |
| (d) <u>Quantity and distribution of employment?</u> | None |
| (e) <u>Distribution and density of population and housing?</u> | None |
| (f) <u>Demands for government services?</u> | None |
| (g) <u>Industrial and commercial activity?</u> | None |
| (h) <u>Utilities?</u> | None |
| (i) <u>Transportation?</u> | None |
| (j) <u>Safety?</u> | None |
| (k) <u>Other appropriate social and economic circumstances?</u> | None |

2. *Secondary and cumulative impacts on the physical environment and human population:*

Secondary Impacts: None identified

Cumulative Impacts: None identified

3. *Describe any mitigation/stipulation measures:*

4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*

PART III. Conclusion

1. Preferred Alternative

None

2 Comments and Responses

None

3. Finding:

Yes___ No X Based on the significance criteria evaluated in this EA, is an EIS required?

If an EIS is not required, explain why the EA is the appropriate level of analysis for this proposed action:

An EA is the appropriate level of analysis for this proposed action because no significant impacts have been identified as a result of the proposed action.

Name of person(s) responsible for preparation of EA:

Name: Brad Bennett

Title: Hydrologist/Specialist

Date: November 29, 2011